

REMARKS

In the Office Action dated May 25, 2005, the Examiner referred to the use of Vakon and Vakon 10 in the specification and in claim 2. The Examiner referred to the use of this term as a trademark, however, neither Vakon nor Vakon 10 is a federally registered United States trademark. Moreover, the Examiner required capitalization of those tradenames. Applicant is unable to find any statutory basis for requiring (arbitrarily capitalization of a tradename), even when the tradename is not normally used or spelled with all capital letters. Applicants therefore believe the original usage of Vakon and Vakon 10 in the specification is proper.

Moreover, the Examiner's further requirement regarding that the composition of the material designated by the tradename Vakon or Vakon 10 be set forth in the specification and claims apparently results from the Examiner using an incorrect version of the specification and claims for examining the application. This application was originally filed in the Patent and Trademark Office on March 19, 2004, and the PAIR record indicates three pages of specification and one page of claims with that date. Since this specification and this set of claims represent the application as originally filed, it is those entries that should have been used for examination purposes.

This application was filed with an unsigned Declaration, and when the signed Declaration was filed on July 19, 2004, it was accompanied by a complete copy of what the inventors believed was the "original application." For some reason, this was scanned in the same manner as the original application, even though it was simply an attachment to the signed Declaration. Moreover, the inventors when signing the Declaration apparently attached an earlier version of the application,

which did not include the composition for Vakon and Vakon 10, as in the re-drafted application that was used as the original application filed on March 19, 2004. The Applicants' statement in the Declaration that the specification of the application is "attached hereto" therefore was incorrect, and the undersigned counsel is in the process of obtaining a new, correct Declaration from the inventors, which will be filed as soon as it is returned with the appropriate signatures.

If the Examiner refers to the specification and claims in PAIR filed on March 19, 2004, the Examiner will see that the composition is included in the original application, and therefore no amendment on that point is necessary. The composition is set forth in the paragraph beginning at page 2, line 9 of the original specification. Nevertheless, where the reference to Vakon is repeated at page 3 of the specification, this page now has been editorially amended to repeat the same composition.

The rejection of claim 2 under §112, second paragraph is therefore submitted to be overcome.

Claim 1 was rejected under 35 U.S.C. §102(b) as being anticipated by Watanabe. Claims 1, 3 and 4 were rejected under 35 U.S.C. §102(b) as being anticipated by Inazuru. Claim 5 was rejected under 35 U.S.C. §103(a) as being unpatentable over Inazuru in view Kutsuzawa.

No prior art was applied against claim 2, however, Applicants assume this is because of the aforementioned use of the incorrect version of the application for examination purposes.

By the present Amendment, the subject matter of claim 2 has been embodied in independent claim 1. Applicants submit that neither the Watanabe reference nor

the Inazuru reference discloses a frame that directly supports a radiation-permeable plate formed by a disk of ceramic material, wherein the frame has the composition set forth in original claim 2, and now embodied in independent claim 1. Applicants further submit that neither the Watanabe nor Inazuru references discloses such a frame that is composed of a metal compatible with the thermal expansion properties of the ceramic material.

With regard to this language of claim 1, in the substantiation of the rejection based on Watanabe, the Examiner cited column 4, line 65 through column 5, line 13 of the Watanabe reference. This passage, however, makes no statements whatsoever regarding the expansion properties or behavior of either the ceramic film or the surrounding frame. It is true that the paragraph in Watanabe preceding the paragraph cited by the Examiner, directed to another embodiment, discusses deformation of the surrounding flange 14, however, this is not deformation due to expansion, but is deformation due to the tightening of the bolts that hold the flange 14 in place.

In the Inazuru reference, the Examiner cited Figure 3 and column 11, lines 18-14 as allegedly disclosing a frame composed of a metal compatible with the thermal expansion properties of the ceramic material. The passage at column 11, lines 18-40 of this reference, however, again makes no mention whatsoever of the expansion behavior of the ceramic or the surrounding frame. The Examiner notes that the metal suggested for this purpose is Kovar, however, there is no discussion whatsoever of the expansion behavior of this metal, and it is merely supposition on the part of the Examiner as to whether the expansion compatibility with the ceramic

material was even a consideration in the design of the electron tube device disclosed in Inazuru.

Since neither the Watanabe reference, nor the Inazuru reference discloses the use of a metal frame that directly supports the ceramic material, and that has a thermal expansion behavior compatible with the expansion behavior of the ceramic material, neither of those references discloses or suggests the use of such a metal having the specific compositional ranges now set forth in claim 1.

Moreover, it should be noted that, as in the present invention, the Inazuru and Watanabe references disclose multiple elements that could be considered as a “frame” surrounding the ceramic film or disk. As in the present invention, however, there is only one such frame that *directly* supports the ceramic disk or film, and claim 1 has been amended to insert the word “directly” to make clear that it is this frame that is composed of the aforementioned metal.

Since the Watanabe and Inazuru references do not disclose all of the elements of claim 1 as arranged and operating in claim 1, neither of those references constitutes an anticipation of claim 1. Moreover, since claims 3 and 4 add further structure to the novel combination of claim 1, neither claims 3 or 4 is anticipated by Inazuru.

As to claim 5, for the above reasons even if the device disclosed in Inazuru were modified in accordance with the teachings of Kutsuzawa, a structure comparable to claim 5, which embodies the subject matter of claim 1 therein, still would not result. Claim 5, therefore, would not have been obvious to a person of ordinary skill in the relevant technology under the provisions of 35 U.S.C. §103(a), based on the teachings of Inazuru and Kutsuzawa.

All claims of the application are therefore submitted to be in condition for allowance, and early reconsideration of the application is respectfully requested.

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